

REMARKS

Claim rejections under 35 USC 102

Claims 1 and 2 have been rejected under 35 USC 102(b) as being anticipated by Leheureau (4,025,784). Claim 1 is an independent claim, from which claim 2 depends. Applicant submits that as amended, claim 1 is patentable over Leheureau, such that claim 2 is patentable at least because it depends from a patentable base claim.

Claim 1 has been amended to better define the “change in reflectivity” originally recited in the claim. In particular, the change in reflectivity is “from reflective to non-reflective.” Support for this amendment is found in the patent application as originally filed at least in FIGs. 6A-6B, 7A-7B, and 8A-8B.

In FIGs. 6A and 6B, the beam 78 that is reflected to the leading sensor 74 in FIG. 6A is no longer reflected to the leading sensor 74 in FIG. 6B, where the beam 78 becomes incident to the feature 66. Thus, the change in reflectivity goes from reflective to non-reflective – that is, there is some reflectivity in FIG. 6A, as captured by the leading sensor 74, and there is no reflectivity in FIG. 6B, since none of the beam 78 is reflected to the leading sensor 74.

Likewise, in FIGs. 7A and 7B, the beam 80 that is reflected to the trailing sensor 76 in FIG. 7A is no longer reflected to the trailing sensor 76 in FIG. 7B, where the beam 80 becomes incident to the feature 66. Thus, the change in reflectivity goes from reflective to non-reflective. That is, there is some reflectivity in FIG. 7A, as captured by the trailing sensor 76, and there is no reflectivity in FIG. 7B, since none of the beam 78 is reflected to the trailing sensor 76.

In FIGs. 8A and 8B, the beams 78 and 80 that are reflected to the sensors 74 and 76 in FIG. 8A are no longer reflected to the sensors 76 and 76 in FIG. 8B, where the beams 78 and 80 become incident to the feature 66. Thus, the change in reflectivity goes from reflective to non-reflective. That is, there is some reflectivity in FIG. 8A, as captured by the sensors 74 and 76, and there is substantially no reflectivity in FIG. 8B, since none of the beams 78 and 80 are reflected back to the sensors 74 and 76.

Applicant submits that Leheureau does not teach, suggest, or disclose having a change in reflectivity from reflective to non-reflective, as to which the claimed invention is now limited. For example, in FIG. 4 of Leheureau, from time t1 to time t2, there is a change in reflectivity at the sensor 4, but this change in reflectivity goes from *more reflective to less reflective*, and not from *reflective to non-reflective*, as in the claimed invention. That is, from time t1 to time t2, the reflectivity at the sensor 4 is still *reflective*, insofar as the reflectivity never reaches the x-axis in FIG. 4.

Likewise, in FIG. 5 of Leheureau, from time t3 to time t4, there is a change in reflectivity at the sensor 5. However, as before, this change in reflectivity goes from *more reflective to less reflective*, and not from *reflective to non-reflective*, as in the claimed invention. For these reasons, therefore, Leheureau does not anticipate the claimed invention.

Claim rejections under 35 USC 103

Claims 3-4 and 6-8 have been rejected under 35 USC 103(a) as being unpatentable over Leheureau (4,025,784) (hereinafter "Leheureau I") in view of Leheureau (2004/0027964) (hereinafter "Leheureau II"). Claim 5 has been rejected under 35 USC 103(a) as being unpatentable over Leheureau I in view of Freeman (6,901,598). Claims 3-8, however, are dependent claims, depending from independent claim 1. Therefore, insofar as claim 1 is patentable, as has been discussed above, claims 3-8 are also patentable, since they depend from a base patentable claim.

Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mike Dryja, Applicants' Attorney, at 425-427-5094, so that such issues may be resolved as expeditiously as possible. For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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